24. (Amended) A process comprising:

forming a first masking layer over a front side of a silicon substrate;

patterning and etching the first masking layer to form a hole therethrough;

depositing a front side protection layer over the first masking layer and in
the hole;

patterning and etching the front side protection layer over the hole; forming a second masking layer over the back side of the substrate; patterning and etching the second masking layer;

etching a back side of the substrate with an alkaline etchant until a bottom surface of the front side protection layer in the hole is substantially exposed and a slot in the substrate is substantially formed: and

etching with a buffered oxide etch to remove the front side protection layer after etching the back side of the substrate to form the slot through the substrate.

Please add the following claims:

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27. A slotted substrate comprising:

a substrate having a first surface, a second opposite surface, and a slot extending from the second surface towards the first surface;

a masking layer formed over the first surface, the masking layer having a hole therethrough corresponding to the slot; and

wherein the slot has a first wall section adjacent the plug, and a second wall section adjacent the second surface, wherein the first wall section extends from the hole adjacent edges of the hole towards the second surface, and the second wall section is shaped substantially as a truncated pyramid and couples with the first wall section.

- 28. A medical device manufactured by the method of claim 1.
- 29. A fuel cell manufactured by the method of claim 1.
- 30. An optical switching device manufactured by the method of claim 1.